



Natural Resources Conservation Service



National Cooperative Soil Survey

# Soil Business Systems

National Soil Survey Center

June 2016

# Mission

- Develop and maintain business systems for
  - Data collection
  - Technology transfer
  - Information delivery
- of National Cooperative Soil Survey data, both nationally and internationally

# Goals

- Develop and maintain business systems
- Provide training
- Implement project management
- Support soil survey activities both nationally and internationally
- Support soil health monitoring activities
- Support soils outreach and collaboration activities
- Customer Support

# Laboratory Information Management System (LIMS)

- FY16 – Completion of business requirements for a new Commercial off-the-shelf (COTS) solution and some pre-bid analysis of existing systems
- FY17 – Competitive bid process and COTS selection and purchase
- FY18 – Implementation, customization, and integration of a new COTS LIMS
- FY19 – New COTS LIMS in place at the Kellogg Soil Survey Laboratory



# National Soil Information System (NASIS)

- FY17 –
  - Begin system analysis for improvements or re-engineering of the NASIS database system
  - Complete guidelines for usage of the NASIS forms system
  - Begin development of the Official Series Description (OSD) object
  - Develop the Enterprise Content Management (ECM) system functionality to accept ancillary soils data
- FY18 –
  - Complete NASIS re-engineering
  - Develop library of forms templates
  - Enable new OSD object
  - Complete the linkage of NASIS to ECM
- FY19 –
  - Switch NASIS to the new system, training, online guidance and reference system

# Web Soil Survey (WSS)

- FY17 –
  - Develop capability to link to and integrate information from the Enterprise Content Management (ECM) system
  - Enhance delivery of thematic soils maps for land use and conservation planners
- FY18 – Increase the capacity of Web Soil Survey to display and query our raster soils data
- FY19 - Enable the Web Soil Survey to be accessed, with all mapping and reporting capability, to portable devices (Apple®, Android, others)

# Enterprise Content Management (ECM) System

- Develop a map interface solution to meet mapping query and display business needs of all Soil Science and Resource Assessment (SSRA)
- Develop document management solutions to meet common information storage and retrieval of hundreds of thousands of SSRA maps, photos, drawings, worksheets, and other files
- Develop a process for external access to facilitate the high volume of external customer information requests in the country and overseas (public, private, Tribal, and University)
- Develop a process for customized data access in order to facilitate the display and query of information from databases containing PII

## Ecological Sites

- Develop an Ecological Site (ES) database specifically to support conservation planning
- Connect ES database to NASIS/SSURGO to deliver spatially explicit information
- Link ES database to Conservation Delivery Streamlining Initiative (CDSI) conservation planning platform to deliver explicit spatial/temporal relevant information and record decisions



## Soil Data Access (SDA)

- FY17 – Improve the public facing interface
- FY18 – Develop a fully searchable and indexed library of SQL queries
- FY19 – Complete the public facing Query Generator

# National Cooperative Soil Survey- Laboratory Data Mart (NCSS-LDM)

- FY17 - Develop the ability for Laboratory Data Mart (LDM) to integrate with ECM
- FY18 - Develop the automatic generation of interactive data point maps
- FY19 – Develop the ability to automatically generate the Access® database of lab data

# Soil Health Rapid Assessment Tool (SHRAT)

- FY17 – Port the existing Access® database to a mobile environment
- FY18 – Develop a database to store and aggregate the collected information

# Interpretation Generator

- Ability to adjust soil properties from the site specific locations and generate on-the-fly interpretations (from ready-to-use interpretations) for desktop and mobile applications
- Ability for non-NASIS users to create new interpretations outside of NASIS
- Ability to use geospatial layers for development of spatially explicit interpretations
- Ability to design and build engaging maps



## For Additional Information

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